IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	Patent Examiner: Lee, Y. Young
Jiuhuai Lu, et al.	Group Art Unit: 2621
Serial No.: 10/532,845	
Filed: 4/27/2005	
For: MOVING PICTURE CODING METHOD, MOVING PICTURE DECODING METHOD AND PROGRAM	June 9, 2009 Costa Mesa, California 92626

37 CFR § 1.131 DECLARATION OF JOSEPH W. PRICE

I, Joseph W. Price, declare as follows:

1.   I am a U.S. patent attorney with an office at 600 Anton Boulevard, Suite 1400, Costa Mesa, California 92626-7689, and attorney of record in the above case.

2.   On April 27, 2005, I filed United States Patent Application Serial No. 10/532,845 at the request of the Nii Patent Firm.

3.   The filed application included Figure 24 (Exhibit C), which was not marked with a prior art notation. Subsequently, in response to an Office Action of June 24, 2008, and upon reviewing the Specification on Page 12, Lines 10-32, which stated that Figure 24 showed "the structure of a conventional picture coating apparatus which does not rearrange the pictures." I filed replacement drawings marking Figures 17-25 as prior art on September 23, 2008.

4.   At such time I was not aware of the erroneous inclusion of a legend "Filter application information" that existed in Figure 24, nor was I aware of an inconsistency in Figure 24, of having an outputted decoded picture directly from a memory 501.

5.   Subsequently, I received an Office Action of March 9, 2009, which I reported to the Nii Patent Firm, noting that the rejection was based upon our disclosure in Figures 17-25 in rejecting each of the outstanding Claims 26-31. At this time I was still not aware of the error in Figure 24.

6.   Subsequently, I was informed that the inventors had discovered errors existing in Figure 24 as to an output line for a decoded picture from memory 501 and the erroneous inclusion of a descriptive legend "Filter application information."

7.   The error with regards to the coded picture output line from the memory 501 can be seen as inconsistent with a teaching of a comparison in our Specification on Page 8 (Exhibit D), as follows:

> For a case of using the picture alignment for prediction without such rearrangement, the structure of the conventional picture coding apparatus is as shown in FIG. 24 while the structure of the conventional picture decoding apparatus is as shown in FIG. 25. The picture coding apparatus 500a in FIG. 24 and the picture decoding apparatus 600a in FIG. 25, in comparison with FIGS. 17 and 23 differ in the respect that they output pictures from the filters 512 and 612 instead of the memories 501 and 601. The respective memories 501 and 601 store only reference pictures but not pictures for display since the rearrangement of pictures is not required in this case. (underline added)

8.   I was subsequently informed by the NII Patent Office that the error in Figure 24 had occurred when the inventors had initially prepared a description of the invention as depicted in the Japanese drawing of Figure 1 (see Exhibit A) and then used Figure 1 to provide a comparison Figure 24, as can be seen from the attached Japanese drawing, Figure 24 Exhibit B.
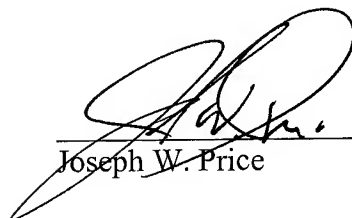
9.   In view of this error, I have proposed an amendment to Figure 24 to correct an output of a decoded picture directly from the filter 512 and to remove the legend "Filter application information," as shown in Exhibit E.

10.   The new proposed Figure 24 is attached hereto as Exhibit F.
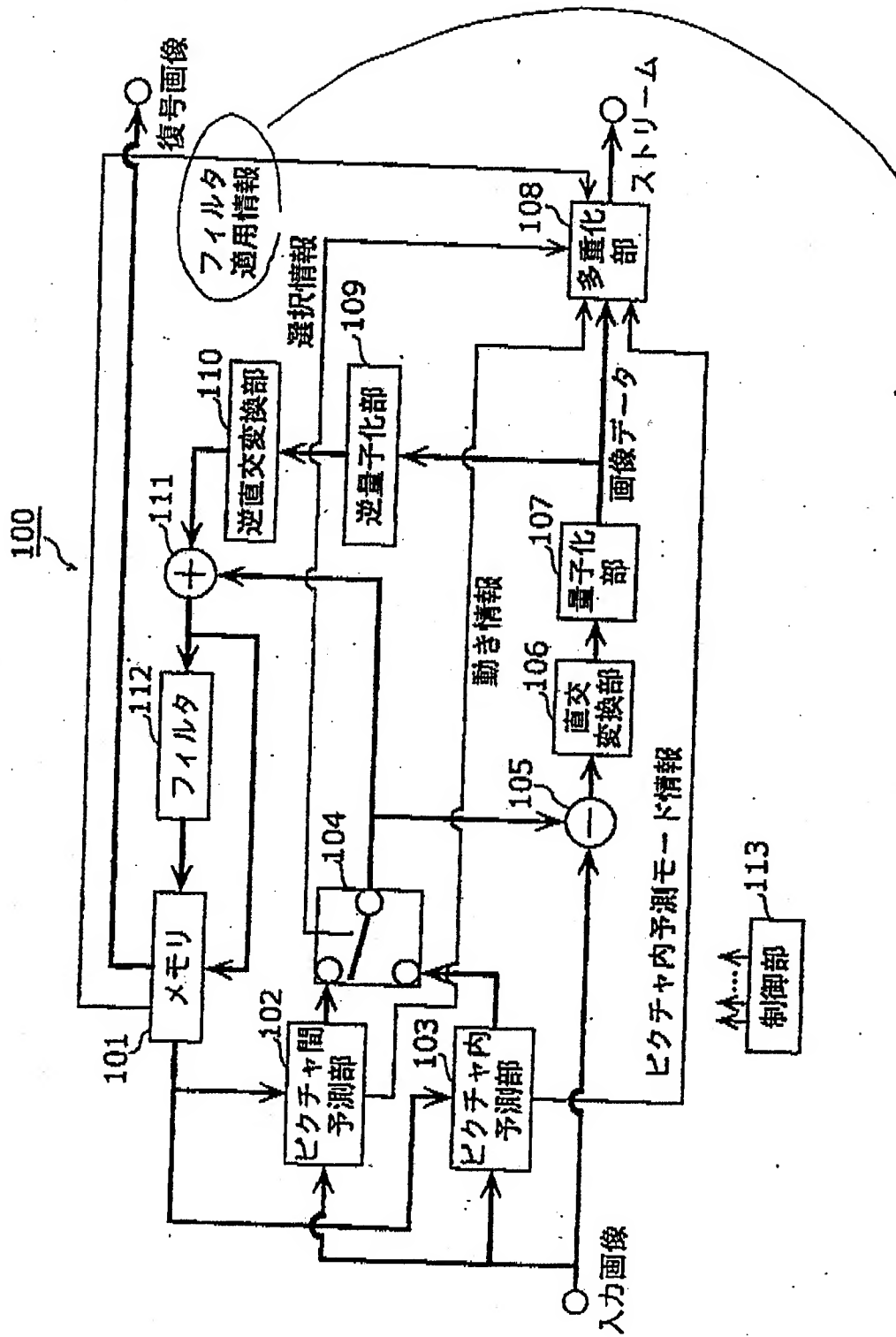
11.   The erroneous presentation of Figure 24 and the subsequent marking of Figure 24 as Prior Art in an erroneous form, was unintentional and I was not aware of this error until it was recently brought to my attention from the Nii Patent Firm.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

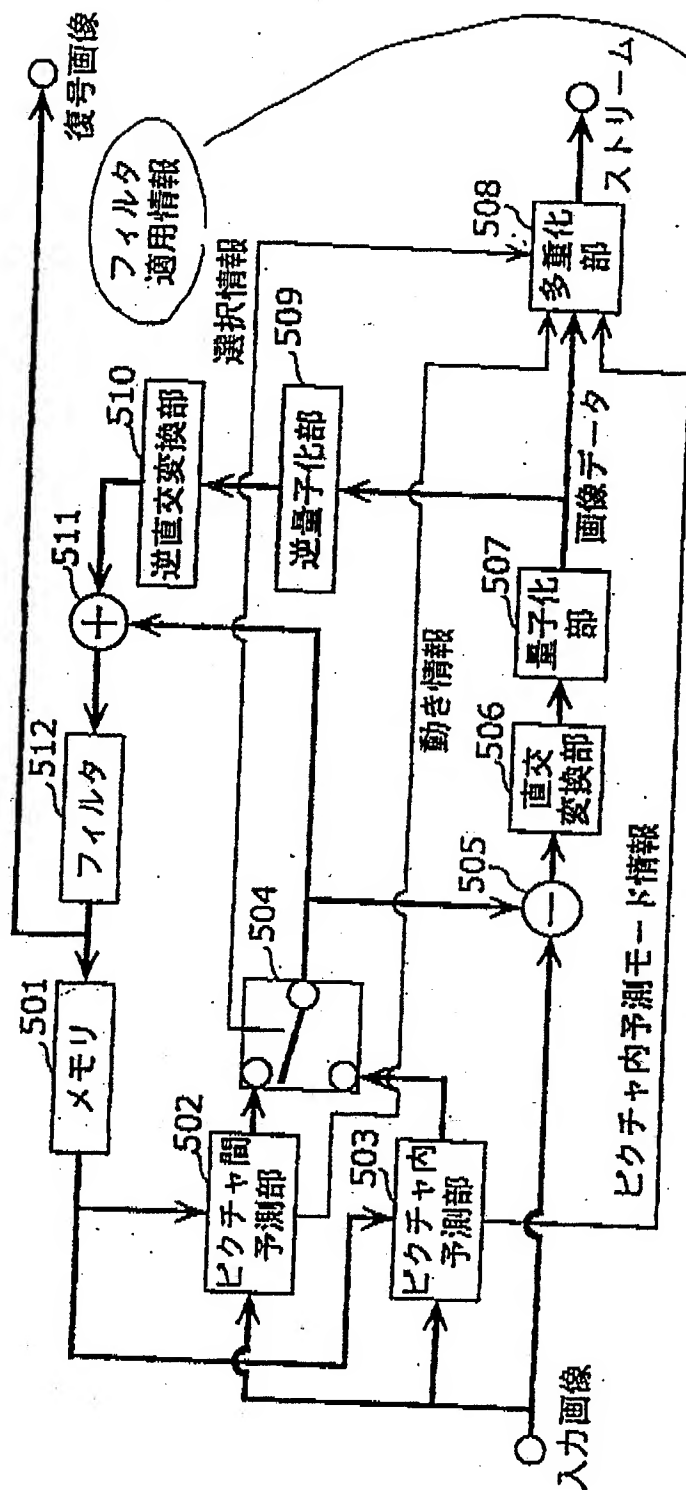Executed on _____*June 9th*_____, 2009, at Costa Mesa, California.

Joseph W. Price

"filter application information"

EXHIBIT A

【図２４】

500a

復号画像

フィルタ適用情報

選択情報

510 逆直交変換部

509 逆量子化部

511 ⊕

512 フィルタ

501 メモリ

504

505 ⊖

動き情報

508 多重化部

507 量子化部

画像データ

506 直交変換部

502 ピクチャ間予測部

503 ピクチャ内予測部

ピクチャ内予測モード情報

入力画像

ストリーム

(Inadvertently included.
inadvertently NOT deleted
when this figure was drafted based on
a copy of figure 1.)

EXHIBIT B

FIG. 24

500a

24/25

EXHIBIT C

The decoding performed by the picture decoding apparatus 600 is as same as the decoding (i.e., reconstruction of the picture) performed by the picture coding apparatus 500.

The picture coding apparatus 500 and the picture decoding apparatus 600 are thus structured for the case in which the pictures in coding order are rearranged in display order as shown in the picture alignments for prediction shown in FIGS. 18 and 19. For a case of using the picture alignment for prediction without such rearrangement, the structure of the conventional picture coding apparatus is as shown in FIG. 24 while the structure of the conventional picture decoding apparatus is as shown in FIG. 25. The picture coding apparatus 500a in FIG. 24 and the picture decoding apparatus 600a in FIG. 25, in comparison with FIGS. 17 and 23 differ in the respect that they output pictures from the filters 512 and 612 instead of the memories 501 and 601. The respective memories 501 and 601 store only reference pictures but not pictures for display since the rearrangement of pictures is not required in this case.

Such picture coding apparatus and the picture decoding apparatus in the prior art reduce the block noise for all the pictures by means of filtering. In addition, they improve the quality of pictures as well as the coding efficiency as the block noise is reduced also for reference pictures.

However, the related art has contained a problem of degrading the quality unique to films produced as film grains, when the material of pictures is film. This is because the film grains, appearing in a picture signal as a special signal component which has few spatio-temporal correlations between the pictures, are removed by a loop filter.

The picture coding apparatus without a loop filter as in MPEG-2 degrades coding efficiency (i.e., compression rate) when such film grains appear in the picture signal.

EXHIBIT D

FIG. 24